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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/724,974	11/28/2000	Stephen M. Trimberger	X-805-3 US	7823

24309 7590 05/21/2004

XILINX, INC
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SAN JOSE, CA 95124

EXAMINER

NGUYEN, MINH DIEU T

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 05/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/724,974

Applicant(s)

TRIMBERGER ET AL.

Examiner

Minh Dieu Nguyen

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

1. Claims 1-7 are currently pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-7** are rejected under 35 U.S.C. 102(e) as being anticipated by Kean, US 2001/0015919.

- a) **As to claim 1**, Kean discloses a method and apparatus for secure configuration of a field programmable gate array (FPGA) comprising the steps of generating an unencrypted bitstream including both the bits representing the configuration of the FPGA and the bits controlling loading of the bitstream (page 1, paragraph 0010; Figure 6); encrypting the bits representing the configuration of the FPGA using at least one key (Figure 5; elements 62, 64) and combining the bits controlling loading of the bitstream with the encrypted bits representing the configuration

of the FPGA to produce a partially encrypted bitstream (Figure 6; page 7, paragraph 0087-0098).

b) **As to claim 2**, Kean discloses the method further comprising the steps of loading the partially encrypted bitstream into the FPGA; decrypting the partially encrypted bitstream within the FPGA using the key and configuring the FPGA using the decrypted bitstream (page 2, paragraph 0011).

c) **As to claim 3**, Kean discloses the method wherein the key for decrypting the bits representing the configuration of the FPGA is stored in the FPGA (Figure 5, element 62).

d) **As to claims 4-5**, Kean discloses the method wherein the key in the FPGA is stored in nonvolatile memory (page 1, paragraph 0009) or volatile memory that may be powered by a battery (page 1, paragraph 0005, 0007).

e) **As to claim 6**, Kean discloses the method wherein some bits controlling loading of the bitstream provide an indication that the bits representing configuration of the FPGA are encrypted (Figure 6; page 6, paragraph 0072).

f) **As to claim 7**, Kean discloses a method for generating an FPGA bitstream having bits representing configuration of the FPGA and bits controlling loading

of the bitstream (Figure 6) comprising the steps of providing an indication as to whether the bits representing configuration of the FPGA are to be encrypted; generating an unencrypted bitstream including both the bits representing the configuration of the FPGA and the bits controlling loading of the bitstream and if the indication indicates that the bits representing configurations of the FPGA are to be encrypted, encrypting the bits representing the configuration of the FPGA (Figure 6; page 7, paragraph 0087-0098).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure

- a) US 2001/0032318 to Yip et al., discloses apparatus and method for protecting configuration data in a programmable device.
- b) US 6,326,806 to Fallside et al., discloses FPGA-based communications access point and system for reconfiguration.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Dieu Nguyen whose telephone number is 703-305-9727. The examiner can normally be reached on M-F 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Morse can be reached on 703-308-4789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

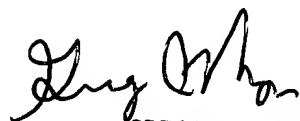
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Minh Dieu Nguyen
Examiner
Art Unit 2137

mdn
5/14/04


GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100